

In the Claims

1-7 (cancelled)

8. (currently amended) A piston accumulator, comprising:

an accumulator housing in a form of a cylindrical tube with first and second working chambers and with a piston stroke area, said cylindrical tube having a wall adjoining said piston stroke area and being a unitary one-piece component of said cylindrical tube;

a piston separating said working chambers from one another and being movable in an axial direction within said piston stroke area;

first and second closing components closing axial ends of said cylindrical tube, said first closing component being formed by shaping a reshaping area of said wall of said cylindrical tube;

a rigid stop element of rigid, non-elastic material in an interior of said cylindrical tube at a transition point from said piston stroke area to said reshaping area, said stop element restricting movement of said piston before reaching said reshaping area, said stop element being a level plate having a rigid, crowned, convex cambered circumferential surface;

a shoulder inside said cylindrical tube supporting and retaining said stop element; and

a concave cambered surface in said cylindrical tube adjacent said shoulder receiving, ~~and~~ formed about and directly engaging said circumferential surface of said stop element during deformation of said wall in forming said first closing component to retain positively said stop element in place in said cylindrical tube against axial movement.

9. (previously presented) A piston accumulator according to claim 8 wherein said level plate has at least one discharge opening allowing fluid flow therethrough.
10. (previously presented) A piston accumulator according to claim 8 wherein said shoulder forms a level surface abutting a level surface of said level plate adjacent said circumferential surface.
11. (previously presented) A piston accumulator according to claim 8 wherein said first working chamber is a gas supply space; and
said second working chamber is a hydraulic fluid space.
12. (currently amended) A piston accumulator, comprising:
an accumulator housing in a form of a cylindrical tube with first and second working chambers and with a piston stroke area, said cylindrical tube having a wall adjoining said piston stroke area and being a unitary one-piece component of said cylindrical tube;
a piston separating said working chambers from one another and being movable in an axial direction within said piston stroke area;
first and second closing components closing axial ends of said cylindrical tube, said first closing component being formed by shaping a reshaping area of said wall of said cylindrical tube;
a rigid stop element of rigid, non-elastic material in an interior of said cylindrical tube at a transition point from said piston stroke area to said reshaping area, said stop element restricting

movement of said piston before reaching said reshaping area, said stop element being an annular element having a rigid, crowned, convex cambered circumferential surface;

a shoulder inside said cylindrical tube supporting and retaining said stop element; and

a concave cambered surface in said cylindrical tube adjacent said shoulder receiving ~~and~~, formed about and directly engaging said circumferential surface of said stop element during deformation of said wall in forming said first closing component to retain positively said stop element in place in said cylindrical tube against axial movement.

13. (previously presented) A piston accumulator according to claim 12 wherein said first working chamber is a gas supply space; and said second working chamber is a hydraulic fluid space.

14. (new) A method of making a piston accumulator, comprising the steps of:

forming an accumulator housing in a form of a cylindrical tube with first and second working chambers, with a piston stroke area and with the cylindrical tube having a wall adjoining the piston stroke area and being a unitary, one-piece component of the cylindrical tube;

mounting a piston in said cylindrical tube in said stroke area to separate the working chambers from one another and to be movable in an axial direction within the stroke area;

reshaping a reshaping area of the wall of the cylindrical tube to form a first closing component closing one axial end of the cylindrical tube;

closing another axial end of the cylindrical tube with a second closing component;

positioning and supporting a rigid stop element of rigid, non-elastic material on a shoulder inside an interior of the cylindrical tube to retain the stop element at a transition point between the piston stroke area and the reshaping area to restrict movement of the piston before reaching the reshaping area, the stop element being annular and having a rigid, crowned, convex cambered circumferential surface; and

forming a concave cambered surface in the cylindrical tube adjacent the shoulder about the circumferential surface of the stop element during deformation of the wall in forming the first closing component to receive, to engage directly and to retain positively the stop element in place in the cylindrical tube against axial movement.

15. (new) A method according to claim 14 wherein

said stop element is a level plate with a discharge opening.

16. (new) A method according to claim 15 wherein

the shoulder is formed as a level surface abutting a level surface of the level plate adjacent the circumferential surface.

17. (new) A method according to claim 14 wherein

gas is supplied to said first working chamber; and

hydraulic fluid is supplied to said second working chamber.